IN THE CLAIMS:

Claims 1, 4-14, 32-50, and 67-74 were previously cancelled. Claims 75, 78, 80 and 83 have been amended herein. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

1. (Cancelled)

2. (Previously presented) The apparatus of claim 75, wherein the alignment elements comprise pins.

3. (Previously presented) The apparatus of claim 75, wherein each set of alignment elements comprises at least two alignment elements located adjacent each component cavity of the plurality.

4.-14. (Cancelled)

15. (Previously presented) The apparatus of claim 75, further comprising structure releasably securable to at least one of the first platen and the second platen and configured for selective securement of the second platen in superimposition to the first platen.

16. (Previously presented) The apparatus of claim 75, wherein at least one of the first platen and the second platen further includes platen alignment features sized, configured and arranged to cooperatively engage a plurality of platen alignment elements projecting thereinto.

17. (Previously presented) An apparatus for fabrication of articles, comprising:

a stereolithography system structured for formation of material in at least a semisolid state in at least one layer to form a structure abutting a pre-existing workpiece located within a vision field above a platform of the stereolithography system, the platform having platen assembly alignment elements projecting therefrom;

a machine vision system in operable communication with the stereolithography system including at least one camera oriented for detecting objects within the vision field;

a computer in operable communication with both the stereolithography system and the machine vision system, the computer being programmed to respond to input from the machine vision system indicative of the presence, location and orientation of at least one workpiece in the vision field and to initiate and control the stereolithography system to form at least one structure of at least one layer of an at least semisolid material abutting the at least one workpiece;

a first platen including a plurality of sets of alignment elements projecting therefrom, the sets of alignment elements configured and positioned for cooperatively engaging sets of alignment features of a like plurality of electronic component assemblies arranged in a plurality of mutually laterally spaced locations over the first platen, the first platen further including platen assembly alignment features engaged with the platen assembly alignment elements; and

a second platen including a plurality of component cavities extending therethrough at a plurality of mutually laterally spaced locations corresponding to the locations over the first platen, the second platen further including a plurality of sets of alignment element receptacles configured and positioned to respectively receive therein the plurality of sets of alignment elements with the second platen superimposed on the first platen.

18. (Original) The apparatus of claim 17, wherein the alignment elements comprise pins.

19. (Original) The apparatus of claim 17, wherein each set of alignment elements comprises at least two alignment elements located adjacent each component cavity of the plurality.

20. (Original) The apparatus of claim 17, wherein each component cavity of the plurality is divided into a plurality of subcavities separated by strut members.

21. (Original) The apparatus of claim 20, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen.

22. (Original) The apparatus of claim 21, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members.

23. (Original) The apparatus of claim 17, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen.

24. (Original) The apparatus of claim 23, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members.

25. (Original) The apparatus of claim 17, wherein the plurality of component cavities are each sized and configured to provide lateral clearance about a plurality of electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

26. (Previously presented) The apparatus of claim 25, wherein each component cavity of the plurality is divided into a plurality of subcavities separated by strut members, and wherein each of the plurality of subcavities is sized and configured to provide lateral clearance about one or more electronic components projecting from a carrier substrate of the electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

27. (Original) The apparatus of claim 26, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen, each component cavity of the another plurality sized and configured to provide lateral clearance about a plurality of electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

28. (Previously presented) The apparatus of claim 27, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members, and wherein each of the plurality of subcavities is sized and configured to provide lateral clearance about one or more electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

29. (Original) The apparatus of claim 17, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen, each component cavity of the another plurality sized and configured to provide lateral clearance about a plurality of electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

30. (Previously presented) The apparatus of claim 29, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members, and wherein each of the plurality of subcavities is sized and configured to provide lateral clearance about one or more electronic components projecting from a carrier substrate of the electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

31. (Original) The apparatus of claim 17, further comprising structure releasably securable to at least one of the first platen and the second platen and configured for selective securement of the second platen in superimposition to the first platen.

32.-50. (Cancelled)

51. (Previously presented) An apparatus for fabrication of articles, comprising:

a stereolithography system structured for formation of material in at least a semisolid state in at least one layer to form a structure abutting a pre-existing workpiece located within a vision field of the stereolithography system, the stereolithography system further including a platen assembly support structure configured for engagement with a platen assembly and enabling inversion of a platen assembly engaged therewith by rotation of the platen assembly about a horizontal axis;

a machine vision system in operable communication with the stereolithography system including at least one camera oriented for detecting objects within the vision field; and

a computer in operable communication with both the stereolithography system and the machine vision system, the computer being programmed to respond to input from the machine vision system indicative of the presence, location and orientation of at least one workpiece in the vision field and to initiate and control the stereolithography system to form at least one structure of at least one layer of an at least semisolid material abutting the at least one workpiece.

52. (Previously presented) The apparatus of claim 51, further including a platen assembly engaged with the platen assembly support structure, the platen assembly comprising:

a first platen including a plurality of sets of alignment elements projecting therefrom, the sets of alignment elements configured and positioned for cooperatively engaging sets of alignment features of a like plurality of electronic component assemblies arranged in a plurality of mutually laterally spaced locations over the first platen; and

a second platen including a plurality of component cavities extending therethrough at a plurality of mutually laterally spaced locations corresponding to the locations over the first platen, the second platen further including a plurality of sets of alignment element receptacles configured and positioned to respectively receive therein the plurality of sets of alignment elements with the second platen superimposed on the first platen.

53. (Original) The apparatus of claim 52, wherein the alignment elements comprise pins.

54. (Original) The apparatus of claim 52, wherein each set of alignment elements comprises at least two alignment elements located adjacent each component cavity of the plurality.

55. (Original) The apparatus of claim 52, wherein each component cavity of the plurality is divided into a plurality of subcavities separated by strut members.

56. (Original) The apparatus of claim 55, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen.

57. (Original) The apparatus of claim 56, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members.

58. (Original) The apparatus of claim 52, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen.

59. (Original) The apparatus of claim 58, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members.

60. (Previously presented) The apparatus of claim 52, wherein each of the plurality of component cavities is sized and configured to provide lateral clearance about a plurality of electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

61. (Previously presented) The apparatus of claim 60, wherein each component cavity of the plurality is divided into a plurality of subcavities separated by strut members, and wherein each of the plurality of subcavities is sized and configured to provide lateral clearance about one or more electronic components projecting from a carrier substrate of the electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

62. (Original) The apparatus of claim 61, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen, each component cavity of the another plurality sized and configured to provide lateral clearance about a plurality of electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

63. (Previously presented) The apparatus of claim 62, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members, and wherein each of the plurality of subcavities is sized and configured to provide lateral clearance about one or more electronic components projecting from a carrier substrate of the electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

64. (Original) The apparatus of claim 52, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen, each component cavity of the another plurality sized and configured to provide lateral clearance about a plurality of electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

65. (Previously presented) The apparatus of claim 64, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members, and wherein each of the plurality of subcavities is sized and configured to provide lateral clearance about one or more electronic components projecting from a carrier substrate of the electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

66. (Original) The apparatus of claim 52, further comprising structure releasably securable to at least one of the first platen and the second platen and configured for selective securement of the second platen in superimposition to the first platen.

67.-74. (Cancelled)

75. (Currently amended) An apparatus for facilitating processing of ~~a plurality~~ plurality of electronic component assemblies, comprising:

a first platen including a plurality of sets of alignment elements projecting from a like plurality of shallow recesses in a surface of the first platen, the like plurality of shallow recesses configured to receive a like plurality of electronic component assemblies, and the plurality of sets of alignment elements configured and positioned for cooperatively engaging sets of alignment features of the like plurality of electronic component assemblies arranged in a plurality of mutually laterally spaced locations over the first platen; and

a second platen including a plurality of component cavities extending therethrough at a plurality of mutually laterally spaced locations corresponding to the locations over the first platen, the second platen further including a plurality of sets of alignment element receptacles configured and positioned to respectively receive therein the plurality of sets of alignment elements with the second platen superimposed on the first platen, wherein each component cavity of the plurality is divided into a plurality of subcavities separated by strut members.

76. (Previously presented) The apparatus of claim 75, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen.

77. (Previously presented) The apparatus of claim 76, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members.

78. (Currently amended) An apparatus for facilitating processing of ~~a plurality~~ plurality of electronic component assemblies, comprising:

a first platen including a plurality of sets of alignment elements projecting from a like plurality of shallow recesses in a surface of the first platen, the like plurality of shallow recesses configured to receive a like plurality of electronic component assemblies, and the plurality of sets of alignment elements configured and positioned for cooperatively engaging sets of alignment features of the like plurality of electronic component assemblies arranged in a plurality of mutually laterally spaced locations over the first platen wherein the first platen further includes a plurality of first platen component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen; and

a second platen including a plurality of second platen component cavities extending therethrough at a plurality of mutually laterally spaced locations corresponding to the locations over the first platen, the second platen further including a plurality of sets of alignment element receptacles configured and positioned to respectively receive therein the plurality of sets of alignment elements with the second platen superimposed on the first platen.

79. (Previously presented) The apparatus of claim 78, wherein each first platen component cavity is divided into a plurality of subcavities separated by strut members.

80. (Currently amended) An apparatus for facilitating processing of ~~a plurality~~ plurality of electronic component assemblies, comprising:

a first platen including a plurality of sets of alignment elements projecting from a like plurality of shallow recesses in a surface of the first platen, the like plurality of shallow recesses configured to receive a like plurality of electronic component assemblies, and the plurality of sets of alignment elements configured and positioned for cooperatively engaging sets of alignment features of the like plurality of electronic component assemblies arranged in a plurality of mutually laterally spaced locations over the first platen; and

a second platen including a plurality of component cavities extending therethrough at a plurality of mutually laterally spaced locations corresponding to the locations over the first platen, the second platen further including a plurality of sets of alignment element receptacles configured and positioned to respectively receive therein the plurality of sets of alignment elements with the second platen superimposed on the first platen, wherein the plurality of component cavities are each sized and configured to provide lateral clearance about a plurality of electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen, and each component cavity of the plurality is divided into a plurality of subcavities separated by strut members, and wherein the plurality of subcavities are each sized and configured to provide lateral clearance about one or more electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

81. (Previously presented) The apparatus of claim 80, wherein the first platen further includes another plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen, each component cavity of the another plurality sized and configured to provide lateral clearance about a plurality of electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

82. (Previously presented) The apparatus of claim 81, wherein each component cavity of the another plurality is divided into a plurality of subcavities separated by strut members, and wherein the plurality of subcavities are each sized and configured to provide lateral clearance about one or more electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.

83. (Currently amended) An apparatus for facilitating processing of a ~~plurality~~ plurality of electronic component assemblies, comprising:

a first platen including a plurality of sets of alignment elements projecting from a like plurality of shallow recesses in a surface of the first platen, the like plurality of shallow recesses configured to receive a like plurality of electronic component assemblies, and the plurality of sets of alignment elements configured and positioned for cooperatively engaging sets of alignment features of the like plurality of electronic component assemblies arranged in a plurality of mutually laterally spaced locations over the first platen, wherein the first platen further includes a first platen plurality of component cavities therethrough at a plurality of mutually laterally spaced locations corresponding to the plurality of mutually laterally spaced locations over the first platen, each first platen component cavity sized and configured to provide lateral clearance about a plurality of electronic components projecting from a carrier substrate of an electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen; and

a second platen including a plurality of second platen component cavities extending therethrough at a plurality of mutually laterally spaced locations corresponding to the locations over the first platen, the second platen further including a plurality of sets of alignment element receptacles configured and positioned to respectively receive therein the plurality of sets of alignment elements with the second platen superimposed on the first platen.

84. (Previously presented) The apparatus of claim 83, wherein each first platen component cavity is divided into a plurality of subcavities separated by strut members, and wherein the plurality of subcavities are each sized and configured to provide lateral clearance about one or more electronic components projecting from a carrier substrate of the electronic component assembly having a set of alignment features engaged with a set of alignment elements projecting from the first platen and received in a set of alignment element receptacles of the second platen.